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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,408	02/23/2000	Toshihiro Sasai	80959	3948

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
YODER III, CHRISS S	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/511,408	SASAI ET AL.	
	Examiner	Art Unit	
	Chriss S. Yoder, III	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8 and 10* is/are rejected.

7)☒ Claim(s) *4 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 3, 2005 has been entered.

Response to Arguments

Applicant's arguments filed October 3, 2005, in regards to claims 1, 8, and 10 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Applicant argues, with respect to claims 8 and 10, that the inherency of the correction amount representing two correction distribution characteristics changing in axial direction is not legally supported because the inherent characteristic does not flow from the teachings of the applied prior art and that the examiner is ignoring the possibility that correction distribution depends on another feature such as color. However, the examiner points out that the Sakaguchi device is dependent on coordinates (column 3, lines 43-47) and that the correction amount changes depending on the location in the two dimensional coordinate system.

Applicant's arguments, see page 8, lines 6-16 and page 9, lines 4-11, filed October 3, 2005, with respect to claims 4 and 9 have been fully considered and are persuasive. The rejections of claims 4 and 9 have been withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawanobori et al. (US Patent # 5,936,668) in view of Lu et al. (US Patent # 5,504524).

2. In regard to claim 1, note Sawanobori discloses the use of an electronic camera apparatus with the capability of correcting luminance balance in an image signal read out from an image sensing element (figure 6: 15 and column 1, lines 4-15), said image signal representing a color image constructed by a plurality of pixels and generating a desired image from the image signal (column 5, lines 31-36; the CCD picks up the image to be generated), comprising a luminance correction section coupled at the output of the image sensing element (column 5, lines 50-55) and operative, on individual units of raw colors of said pixels (column 5, lines 50-61), each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information (column 5, lines 50-52), the luminance information being discrete on a time axis (this is inherent, when each

image is captured it is captured independently of the next image, therefore, it is discrete on a time axis), to generate individual correction coefficients for each of said predetermined colors of each said pixel from a plurality of correction coefficients (column 5, lines 50-61; each color has a correction coefficient), correct white balance using corresponding luminance information in the image signal on the basis of each said correction coefficient (column 5, lines 50-61; the correction coefficients are used to correct the image to be output), and output a new image signal used for image generation (column 5, lines 62-64).

Therefore, it can be seen that Sawanobori fails to disclose that the new image that is created is stored in a memory located within the electronic camera.

In analogous art, Lu discloses the use of a camera that corrects an image read from the image sensing element. Lu discloses the use of a recording means for recording the corrected image (figure 1: 8 and column 6, lines 21-24). It is well known in the art that the recording of corrected images is preferred in order to reproduce the image correctly for proper display or printing at a later time. Therefore, it would have been obvious to one of ordinary skill in the art to modify the Sawanobori device to include the storage of the image after being corrected in order to reproduce the image correctly for proper display or printing at a later time.

3. In regard to claim 2, note Sawanobori discloses that the luminance correction section is connected in series with the image signal (figure 6: the luminance correction section, 41-44, are located in series with the image signal; the image signal is sent from CCD 15 to the display 13).

4. In regard to claim 3, note Sawanobori discloses that the luminance correction section comprises a correction control section for sequentially generating a luminance correction amount corresponding to each pixel from the plurality of correction coefficients on the basis of a clock signal synchronized with each luminance information in the image signal (column 5, lines 50-61; the white balance controlling circuits, 42-44 are controlled by the controller, 20, which is considered to a generate a clock signal), and a luminance correction amplification section for switching a gain in accordance with the luminance correction amount sequentially generated by said correction control section to amplify the input image signal by a gain corresponding to each luminance correction amount in units of luminance information (column 5, lines 50-61; luminance correction amplifiers, 42-44), and outputting the new image signal (column 5, lines 62-64).

5. In regard to claim 5, note Sawanobori discloses that the plurality of correction coefficients are formed from luminance correction amounts in units of predetermined colors assigned to the pixels (column 5, lines 50-61; each pixel is a unit color and the colors are adjusted using the correction coefficients for each color, RGB), and said luminance correction section sequentially selects and uses the luminance correction amounts corresponding to the colors assigned to the pixels as the individual correction coefficients in units of pixels (column 5, lines 50-61; each color is adjusted according the gain set for that pixel).

6. Claims 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawanobori et al. (US Patent # 5,936,668) in view of Lu et al. (US Patent # 5,504524) and further in view of Sakaguchi (US Patent # 5,534,916).

7. In regard to claim 6, note the primary reference of Sawanobori in view of Lu discloses the use of a camera having an image sensing device and a luminance correction section for correcting the luminance information based on the correction coefficients as claimed in claim 1. Therefore, it can be seen that the primary reference lacks the use of correction amounts corresponding to coordinate positions defined by two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3). Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens (column 1, lines 24-28). Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

8. In regard to claim 7, note the primary reference of Sawanobori in view of Lu discloses the use of a camera having an image sensing device and a luminance correction section for correcting the luminance information based on the correction coefficients as claimed in claim 1. Therefore, it can be seen that the primary reference lacks the use of correction amounts corresponding to coordinate regions defined by two-dimensional coordinates of the image. Sakaguchi discloses the use of two-

dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3). Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens (column 1, lines 24-28). Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

9. In regard to claim 8, note the primary reference of Sawanobori in view of Lu discloses the use of a camera having an image sensing device and a luminance correction section for correcting the luminance information based on the correction coefficients as claimed in claim 1. Therefore, it can be seen that the primary reference lacks the use of correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form the two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3), and it is inherent that the correction amounts represent two correction distribution characteristics changing in axial directions because the correction amount is dependent on the pixel position. Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens(column 1, lines 24-28). Therefore, it would have been obvious to one of ordinary skill to modify the primary

device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

10. In regard to claim 10, note the primary reference of Sawanobori in view of Lu discloses the use of a camera having an image sensing device and a luminance correction section for correcting the luminance information based on the correction coefficients as claimed in claim 1. Therefore, it can be seen that the primary reference lacks the use of correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form the two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3), it is inherent that the correction amounts represent two correction distribution characteristics changing in axial directions because the correction amount is dependent on the pixel position, and as pixel position changes in either of the two dimensions then the sum of the correction amount is obtained (i.e. moving in the "x" direction causes a change in correction amount and moving in the "y" direction causes a change in the correction amount). Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens (column 1, lines 24-28). Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

Allowable Subject Matter

Claims 4 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (571) 272-7323. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CSY
December 20, 2005

NGOC-YEN VU
PRIMARY EXAMINER